

## REMARKS

This is intended as a full and complete response to the Office Action dated April 1, 2008, having a shortened statutory period for response set to expire on July 1, 2008. Applicants submit this response to place the application in condition for allowance or in better form for appeal.

### ***Claim Rejections - 35 U.S.C. § 103***

Claims 1, 3, 6 and 8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over US 6,194,120 to *Chan et al.* in view of U.S. Patent 5,647,030 to *Jorgenson et al.*

Claim 1 recites that “a property of the D-shaped portion changes in response to the measurand, the property being polarization or birefringence; and... a refractive index of the layer changes in response to a change in the measurand.” As the Examiner states, “Chan does not specifically teach that the refractive index of the layer changes in response to the measurand.” Regarding *Chan*, the Examiner further states “the measurand being electric field.” Instead of “the measurand being electric field,” *Jorgenson* discloses “a layer which interacts with the sample” such that the “layer permits the manufacture of a fiber optic SPR sensor which is more sensitive to, or more selective for, a sample (or analyte within a sample)” (column 8, lines 29-34).

Even if hypothetically combined and assuming that *Chan* teaches “a property of the D-shaped portion changes in response to the measurand, the property being polarization or birefringence” as the Examiner states, *Chan* in view *Jorgenson* thereby fails to teach that in response to the measurand (i.e., electric field as identified by the Examiner) both (1) the property of the D-shaped portion changes and (2) the refractive index of the layer changes since the layer taught in *Jorgenson* is responsive to the sample and not electric field.

Claim 8 recites that “a property of at least one of the first and second D-shaped waveguides changes in response to the measurand, the property being polarization or birefringence; and... the layer capable of changing thickness in response to the measurand.” As discussed herein regarding claim 1, the layer disclosed in *Jorgenson* interacts with the sample to measure the sample and not electric field. This teaching prevents *Jorgenson* from overcoming the deficiency of *Chan*, which “does not specifically teach that the refractive index of the layer changes in response to the measurand,” as stated by the Examiner.

Therefore, *Chan* in view of *Jorgenson* fails to teach, show or suggest each and every element of claim 1 or claim 8. Further, these references cannot render obvious any claims dependent on claim 1 or claim 8. Accordingly, Applicants request withdrawal of the rejection and allowance of claims 1, 3, 6 and 8.

Claim 9 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over *Chan* and *Jorgenson* in view of U.S. Patent to *Bergh* (4,386,822). Claim 11 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over *Chan* and *Jorgenson* in view of U.S. 2002/0197037 to *Bailey et al.*

Claims 9 and 11 are dependent on claim 8 which Applicants submit is allowable for the reason discussed above. In particular, *Bergh* or *Bailey* fail to overcome the deficiencies of *Chan* and *Jorgenson*. Accordingly, Applicants submit that claims 9 and 11 are allowable and respectfully request withdrawal of these rejections.

### ***Conclusion***

The references cited by the Examiner, alone or in combination, do not teach, show or suggest the invention as claimed. Having addressed all issues set out in the office action, Applicants respectfully submit that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted, and  
**S-signed pursuant to 37 C.F.R. 1.4,**

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